1. Introduction

1.1 Package Contents
Thank you for purchasing PLANET POE-E201 IEEE 802.3at Power over Gigabit Ethernet Extender, your Power over Gigabit Ethernet Extender package shall contains following contents:

Check the contents of your package for following parts:
- IEEE 802.3at Power over Gigabit Ethernet Extender x 1
- User's Manual x 1

If any of these pieces are missing or damaged, please contact your dealer immediately, if possible, retain the carton including the original packing material, and use them against to repack the product in case there is a need to return it to us for repair.

1.2 Key Features
- IEEE 802.3at / 802.3af Power over Ethernet compliant
- Complies with IEEE 802.3 / 802.3u / 802.3ab 10/100/1000Base-T
- Extends the range of PoE an additional 100 meters (328ft.)
- Auto-detect and protect of PoE equipment from being damaged by incorrect installation
- Multiple units, daisy-chain installation support
- Forwards both Ethernet data and PoE power to remote device
- No external power cable installation required
- Compact size, Wall-mountable design
- Plug-and-Play installation

1.3 Technical Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>POE-E201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interfaces</td>
<td>LAN IN / LAN OUT</td>
</tr>
<tr>
<td></td>
<td>1 x 10/100/1000Base-T Ethernet with IEEE 802.3at / 802.3af PoE “Data + DC” in Auto MDI/MDI-X, Auto-negotiation RJ-45 connector</td>
</tr>
<tr>
<td></td>
<td>1 x 10/100/1000Base-T Ethernet with IEEE 802.3at / 802.3af PoE “Data + DC” out Auto MDI/MDI-X, Auto-negotiation RJ-45 connector</td>
</tr>
<tr>
<td>Power over Ethernet</td>
<td>PoE Standard: IEEE 802.3af Power over Ethernet IEEE 802.3at High Power over Ethernet</td>
</tr>
<tr>
<td></td>
<td>PoE Power Supply Type: Mid-Span / Type B</td>
</tr>
<tr>
<td></td>
<td>PoE Power Output: 52V DC, 510mA, Max. 26 Watts</td>
</tr>
<tr>
<td></td>
<td>Power Pin Assignment: 4/5(+), 7/8(-)</td>
</tr>
<tr>
<td></td>
<td>Maximum Distance: 4 units, daisy-chain installation with 500m support</td>
</tr>
</tbody>
</table>

Network Cable: 10Base-T: 4-Pair UTP Cat. 5 up to 180m (328ft.) 100Base-TX: 4-Pair UTP Cat. 5 up to 100m (328ft.) 1000Base-T: 4-Pair UTP Cat. 5e, 6, up to 100m (328ft.) 10GBase-T: 56Gbps Ethernet 100-ohm STP (100m, 328ft.)

Power over Gigabit Ethernet (PoE+): IEEE 802.3at compliant with voltage within 52V-56V DC

Power over Gigabit Ethernet Extender (PoE++): IEEE 802.3at High Power over Ethernet

Standards Conformance
- IEEE 802.3u 100Base-TX Fast Ethernet
- IEEE 802.3ab 1000Base-T Gigabit Ethernet
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at High Power over Ethernet
- IEEE 802.3x Flow Control

Environmental Specifications
- Operating Temperature: -10 ~ 60 Degree C
- Storage Temperature: -40 ~ 85 Degree C
- Relative Humidity: 5 ~ 95% (non-condensing)
- Relative Humidity: 5 ~ 95% (non-condensing)

2. Hardware Description

2.1 Product Description

This product provides three different running speeds – 10Mbps, 100Mbps and 1000Mbps in the same device and automatically distinguishes the speed of incoming connection.

This section describes the hardware features of POE-E201. Before connecting any network device to the POE-E201, read this chapter carefully.

3.1 Before Installation

Before your installation, it is recommended to check your network environment. If there is any far away IEEE 802.3at / 802.3af devices need to power on, the POE-E201 can provide you a way to supply power for this Ethernet device conveniently and easily.

The POE-E201 is installed between the PSE (Power Source Equipment) and the PD (Powered Device); it is powered by PSE and forwards the Ethernet data and remaining PoE power to the PD. The POE-E201 doesn’t require an external power supply and it can be installed easily just plug and play; that means the operator does not need to configure the POE-E201. The POE-E201 injects power to the PDs without affecting the data transmission performance. It offers a cost effective and quick solution to extend power and data an additional 100m.

2.2 Ports Connection

Connect the PoE IN port from following 802.3at / 802.3af PSE device through a CAT-5e/6 UTP cable:
- PoE Injector
- PoE Ethernet Switch
- Previous POE-E201

Connect the PoE OUT port to following 802.3at / 802.3af PD device through a CAT-5e/6 UTP cable:
- PoE IP Camera
- PoE Wireless AP
- Next POE-E201

2.3 LED Definition:

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>PoE IN</td>
<td>Green</td>
<td>Lights to indicate the port is providing 52-56V (802.3at) / 48V (802.3af) DC in-line power.</td>
</tr>
<tr>
<td>LNK/ACT</td>
<td>Green</td>
<td>Lights to indicate the port is link up. Blink: indicate that the extender is actively sending or receiving data over IN port.</td>
</tr>
<tr>
<td>PoE OUT</td>
<td>Green</td>
<td>Lights to indicate the port is providing 52-56V (802.3at) / 48V (802.3af) DC in-line power.</td>
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PoE (24W)

Power LED indicator of the first

When installing

Step 5:

Step 4:

Step 3:

3.3 Connect POE-E201 to the Powered Device (PD)

Step 3:

Connect the additional Cat.5/5e/6 cable to the remote PoE powered device to the "OUT" port of next or third POE-E201.

Step 4:

Connect the additional Cat.5/5e/6 cable from Power Source (PSE), such as PoE Switch, PoE Injector hub and single port PoE injector, to the "IN" port of POE-E201.

Step 2:

The PSE delivers both Ethernet Data and PoE power over UTP cable to the POE-E201 and the "PoE IN" port will be steady on.

Note:

1. The POE IN LED turn on steady green means POE-E201 is being powered successfully with PoE class 0.

2. If POE IN LED does not turn on, please check the remote PSE or the cable with a PC or a network device to see if the cable is correct. Or with an IEEE 802.3at / 802.3af device such as the target PD to check the power injection is correct either.

The PoE-E201 PoE Extender supports multiple units, daisy-chain installation. They can be employed in series or even longer distances based on remote PoE IP Camera or PoE Wireless Access Point power requirement.

Step 1:

Connect POE-E201 to the Powered Device (PD) to the "OUT" port of POE-E201.

Step 2:

The "OUT" port is also the power injectors port on the other side functions as "PoE (Data and Power) output".

Step 3:

3.4 Multiple PoE Extender Installation

The POE-E201 PoE Extender supports multiple units, daisy-chain installation. They can be employed in series or even longer distances based on remote PoE IP Camera or PoE Wireless Access Point power requirement.

Step 1:

Connect the additional Cat.5/5e/6 cable from the "OUT" port of the first POE-E201, the other end of the UTP cable be used to connect to the "IN" port of remote / next POE-E201.

Step 2:

The "PoE OUT" LED indicator of the first POE-E201 will be steady on to show it is providing power to next PoE Extender.

Step 3:

The "PoE IN" LED on the next POE-E201 will steady on.

3.3 Connect POE-E201 to the Power Source Equipment (PSE)

There are 2 RJ-45 ports in the PoE Extender, of which the "IN" port functions as "PoE (Data and Power) input" and the "OUT" port on the other side functions as "PoE (Data and Power) output".

Step 1:

Connect a standard Cat.5/5e/6 UTP cable from the PoE injector, to the "IN" port of POE-E201.

Step 2:

The PoE (Data and Power) output" port of POE-E201.

3.5 Optional - DIN-Rail Mounting

There are two DIN-Rail holes on the left side of the POE-E201 that allows the Extender can be easily installed with DIN-Rail mounting. The PLANET optional DIN-Rail mounting Kit - RKE-DIN can be order separately. When need to replace the wall mount application with DIN-Rail application on the POE-E201, please refer to following figures to screw the DIN-Rail on the Extender. To hang the POE-E201, follow the below steps:

Step 1:

screw the DIN-Rail on the POE-E201.

Step 2:

Lightly press the button of DIN-Rail into the track.

Step 3:

Check the DIN-Rail is tightly on the track.

You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.